

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First named Applicant: Mitchell M. Rohde	Group Art Unit: 3709
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Title: Entertainment machine using biometric information	Examiner: Kang Hu
Attorney Docket No.: 1048.004US1	

Assistant Commissioner for Patents
Washington, D.C. 20231

APPEAL BRIEF

This Appeal Brief is organized in accordance with the requirements set forth in 37 CFR 41.37(c).

Real party in interest

The real party in interest is Quantum Signal, LLC, of Ann Arbor, Mich. All applicants of the present patent application have assigned their rights to the invention to Quantum Signal.

Related appeals and interferences

There are no related appeals or interferences to the present patent application.

Status of claims

Claims 1-19 are pending in this matter. All claims 1-19 stand rejected. All claims 1-19 are being appealed, and thus all claims 1-19 are the subject of the present appeal brief.

Status of amendments

Claims 1-3, 6-8, 13-14, and 18-19 were amended in the office action response of March 17, 2007, and entered by the Examiner in the final office action of June 4, 2007. Thus, all of the

amendments made to the claims have been entered, and the claimed invention as appealed herein is as has been amended.

Summary of claimed subject matter

Claims 1, 8, 13, and 18 are independent claims, from which the other pending claims ultimately depend.

Claim 1

Claim 1 is limited to a method, such as that of FIG. 1 of the specification as described on page 3, line 18, through page 7, line 2. The method “detect[s] biometric information of a customer by an entertainment machine.” (Part 102 of FIG. 1, as described on p. 4, ll. 5-13.) Next, “the entertainment machine compar[es] the biometric information of the customer against a database of biometric information of a plurality of people other than the customer and with which the customer is likely to be familiar to yield one or more people having biometric information that most closely matches the biometric information of the customer.” (Part 104 of FIG. 1, as described on p. 4, l. 14, through p. 6, l. 9.) Finally, the method “indicat[es] to the customer by the entertainment machine of identities of the one or more people having biometric information that most closely matches the biometric information of the customer.” (Part 106 of FIG. 1, as described on p. 6, l. 10, through p. 7, l. 2.)

Claim 8

Claim 8 is limited to an “entertainment machine,” such as the machine 300 of FIGs. 3 and 4 as described on page 9, line 1, through page 12, line 12. The entertainment machine has “a biometric acquisition mechanism to obtain biometric information of a customer.” (Element 306 of FIG. 3 and element 406 of FIG. 4, as described on p. 10, ll. 5-12.) The entertainment machine further has “a computer-readable medium having stored thereon a database of biometric information of a plurality of predetermined people with which the customer is likely to be familiar.” (Element 408 of FIG. 4, as described on p. 10, ll. 13-23.) The entertainment machine

also has “a comparison mechanism to compare the biometric information of the customer against the database to yield one or more people having biometric information that most closely matches the biometric information of the customer.” (Element 402 of FIG. 4, as described on p. 11, ll. 1-12.) The entertainment machine finally has “an output mechanism to indicate to the customer the one or more people having biometric information that most closely matches the biometric information of the customer.” (Element 304 of FIG. 3 and element 404 of FIG. 4, as described on p. 11, ll. 13-22.)

Claim 13

Claim 13 is limited to a method, such as that of FIG. 2 of the specification as described on page 7, line 3 through page 8, line 23. The method “detect[s] biometric information of a first customer by an entertainment machine.” (Part 202 of FIG. 2, as described on p. 7, ll. 12-21.) The method further “detect[s] biometric of a second customer different than the first customer by the entertainment machine.” (Part 204 of FIG. 2, as described on p. 7, ll. 12-21; see also p. 8, ll. 19-23, in which prizes and awards may be provided for the first and the second customers in accordance with how closely “they” match one another, such that the closest match to date of “two” customers may cause “them” to receive an award – the words “they,” “them,” and “two” indicate the first and the second customers are not the same person.) The method “determin[es] how closely the biometric information of the first customer and the biometric information of the second customer match.” (Part 206 of FIG. 2, as described on p. 7, l. 22, through p. 8, l. 10.) Finally, the method “indicat[es] how closely the biometric information of the first customer and the biometric information of the second customer match to the first and the second customers by the entertainment machine.” (Part 208 of FIG. 2, as described on p. 8, ll. 11-23.)

Claim 18

Claim 18 is limited to an “entertainment machine,” such as the machine 300 of FIGs. 3 and 4 as described on page 9, line 1, through page 12, line 12. The entertainment machine has “a biometric acquisition mechanism to obtain biometric information of a first customer and biometric information of a second customer different than the first customer.” (Element 306 of FIG. 3 and element 406 of FIG. 4, as described on p. 10, ll. 5-12; see also p. 8, ll. 19-23, in which prizes and awards may be provided for the first and the second customers in accordance with how closely “they” match one another, such that the closest match to date of “two” customers may cause “them” to receive an award – the words “they,” “them,” and “two” indicate the first and the second customers are not the same person.) The entertainment machine has “a comparison mechanism to determine how closely the biometric information of the first customer matches the biometric information of the second customer.” (Element 402 of FIG. 4, as described on p. 11, ll. 1-12.) The entertainment machine finally has “an output mechanism to indicate to the first customer and the second customer how closely the biometric information of the first customer matches the biometric information of the second customer.” (Element 304 of FIG. 3 and element 404 of FIG. 4, as described on p. 11, ll. 13-22.)

Grounds of rejection to be reviewed on appeal

For the purposes of this appeal, there are five grounds of rejection to be reviewed. The first ground of rejection is whether claims 13-17 are anticipated under 35 USC 102(e) as being anticipated by the US patent reference Howard (2004/0133582). The second ground of rejection is whether claims 18-19 are anticipated under 35 USC 102(e) as being anticipated by Howard. The third ground of rejection is whether claims 1-7 are anticipated under 35 USC 102(e) as being anticipated by Howard. The fourth ground of rejection is whether claims 8-13 are anticipated under 35 USC 102(e) as being anticipated by Howard. The fifth ground of rejection is whether claims 1-7 fail to comply with the enablement requirement of 35 USC 112, first paragraph.

Argument

First ground of rejection, as to anticipation of claims 13-17

Claims 13-17 have been rejected under 35 USC 102(e) as being anticipated by Howard. Claim 13 is an independent claim, from which claims 14-17 ultimately depend. Applicant submits that claim 13 is not anticipated by Howard, such that claims 14-17 are not anticipated by Howard at least because they depend from an unanticipated base independent claim, claim 13.

Applicant notes that, under 35 USC 102, every limitation of a claim must *identically* appear in a single prior art reference for it to anticipate the claim. (In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990)) That is, the standard for anticipation under 35 USC 102 is that "[t]here must be *no difference* between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." (Scripps Clinic & Research Found. v. Genentech, Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991)) While a reference may explicitly or implicitly (i.e., inherently) disclose the claimed invention, it is noted that "[i]nherency . . . may *not* be established by probabilities or *possibilities*. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient." (Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)) Rather, the extrinsic evidence "must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference." (*Id.*)

Claim 13 is limited a method that obtains biometric information *of two customers* – where the second customer is different than the first customer. The method determines how closely they are to one another, and indicates *to these customers* this measurement of how closely their biometric information is. Thus claim 13 is limited to indicating how closely two customers' biometric information match *to these two customers*. For example, the value of such a method can be in two people who are dating one another or who are married learning for amusement purposes how closely they look alike, how much they sound alike, and so on.

The most relevant portion of Howard to the embodiments of the claimed invention covered by claim 13 is in paragraph [0022], which reads as follows:

Commercial manufacturers . . . manufacture biometric recognition systems that can be adapted to be capable of comparing two images. For example, the

IDENTIX FACE IT product may be used to compare two facial images *to determine whether the two images belong to the same person*. Other commercial products are available that can compare two fingerprint images and *determine whether the two images belong to the same person*.

Howard thus diverges from the claimed invention in at least two significant ways. First, the claimed invention obtains biometric information of a first customer, and then obtains biometric information of a second customer. The second customer is different than the first customer. However, in Howard, you are comparing two images to see if they belong to the same person. As such, it is not *inherent* in Howard that the first person is different than the second person. In fact, there is at least some likelihood that these two people are the same person; otherwise, there is no point in comparing two images to see if they belong to the same person. Therefore, this aspect of the claimed invention is not anticipated by Howard.

Second, Howard does not disclose indicating how closely the biometric information of the first and the second customers match one another *to these customers themselves*. That is, in the claimed invention, the entertainment machine indicates *to the first and the second customers* how close their biometric information is. Howard is silent as to this point, and thus cannot explicitly anticipate this aspect of the claimed invention. However, Howard also does not implicitly anticipate this aspect of the claimed invention, either. For example, the usefulness of determining whether two images are of the same person is useful when you are looking at two sets of fingerprints from different crime scenes. In this instance, how closely the two images match is not going to be indicated *to the people whose faces or fingerprints are in the images*, but rather to a law enforcement or a security user. Therefore, the aspect of the claimed invention in question is not “necessarily present” within Howard, such that the claimed invention is not anticipated by Howard.

In response to Applicant’s arguments, the Examiner has grouped claims 13 and 18 together, and stated first that “Applicant’s arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.” (Final office action, p. 10, para. 6.) Applicant respectfully disagrees. Applicant has

explained above how Howard differs from the claimed invention because it does not explicitly or inherently detect biometric information of two different people, as in the claimed invention, and does not explicitly or inherently indicate to these two different people in particular how close their biometric information match. As such, Applicant has specifically pointed out how the language of the claims is distinguished from Howard. Howard does not disclose “detecting biometric information of a second customer *different than the first customer*,” and Howard does not disclose “indicating how closely the biometric information of the first customer and the biometric information of the second customer match *to the first and the second customers*.”

The Examiner has also stated that:

It is a mere choice who is informed of [how closely the biometric information match]. It is a mere choice to who is informed of such result, it does not constitute a distinct patentable limitation. Once again, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, which it is, then it meets the claim.

(Final office action, p. 10, para. 6.) Applicant respectfully disagrees. First, Applicant notes that claim 13 is limited to a method claim, not an apparatus claim. Indeed, the Examiner has not provided any legal support for his statements that if the structure of the prior art is capable of performing a method, then the structure necessarily anticipates the method, even if the structure is not described as performing the method in the prior art reference in question.

Second, the Examiner says that it is a “mere choice” who is informed of how closely the biometric information of the first customer and the biometric information of the second customer match, such that the last element of claim 13 is not a “distinct patentable limitation,” and that this last element of claim 13 is thus an “intended use of the claimed invention.” However, the last element of claim 13 is not an intended use of the claimed invention; it is a positive limitation of the method of claim 13, specifically that how closely the biometric information of the first customer and the biometric information of the second customer match is indicated *to the first and the second customers*. A positive limitation of an action performed by a method cannot be an “intended” use of the method. For instance, claim 13 does not say that how closely the biometric

information match is “for indication to the first and the second customers” – that would be an intended use. Rather, claim 13 explicitly recites “indicating how closely the biometric information . . . match to the *first and the second customers*.” This is a distinct patentable limitation, insofar as Howard does not teach such indication.

It is noted that even if the Board agrees with the Examiner in this respect, Howard still does not anticipate claim 13, because it does not necessarily obtain biometric information of both a first customer and a second customer different than the first customer. The Examiner has not addressed this argument of Applicant other than by saying that it amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. However, as has been discussed above, Applicant has indeed provided a detailed discussion as to how the language of the claims – such as obtaining biometric information of a first customer and a second customer different than the first customer – is not found in Howard. For all of these reasons, Applicant submits that claim 13, and thus claims 14-17 that depend therefrom, are not anticipated by Howard.

Second ground of rejection, as to anticipation of claims 18-19

Claims 18-19 have also been rejected under 35 USC 102(e) as being anticipated by Howard. Claim 18 is an independent claim, from which claim 19 depends. Applicant submits that claim 18 is not anticipated by Howard, such that claim 19 is not anticipated by Howard at least because it depends from an unanticipated base independent claim.

Applicant again notes that, under 35 USC 102, every limitation of a claim must *identically* appear in a single prior art reference for it to anticipate the claim. (In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990)) That is, the standard for anticipation under 35 USC 102 is that “[t]here must be *no difference* between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” (Scripps Clinic & Research Found. v. Genentech, Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991)) While a reference may explicitly or implicitly (i.e., inherently) disclose the claimed invention, it is noted that “[i]nherency . . . may *not* be established by probabilities or *possibilities*. The mere fact that a certain thing *may* result from a given set of

circumstances is not sufficient.” (Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)) Rather, the extrinsic evidence “must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference.” (*Id.*)

Claim 18 is the apparatus analog to the method of claim 13. As such, claim 13 is limited an entertainment machine that obtains biometric information *of two customers* – where the second customer is different than the first customer. The machine determines how closely they are to one another, and indicates *to these customers* this measurement of how closely their biometric information is. Thus claim 18 is limited to indicating how closely two customers’ biometric information match *to these two customers*. For example, the value of such a machine can be in two people who are dating one another or who are married learning for amusement purposes how closely they look alike, how much they sound alike, and so on.

As has been discussed in relation to claim 13 above, the most relevant portion of Howard to the embodiments of the claimed invention covered by claim 18 is in paragraph [0022], which reads as follows:

Commercial manufacturers . . . manufacture biometric recognition systems that can be adapted to be capable of comparing two images. For example, the IDENTIX FACE IT product may be used to compare two facial images *to determine whether the two images belong to the same person*. Other commercial products are available that can compare two fingerprint images and *determine whether the two images belong to the same person*.

Howard thus diverges from the claimed invention in at least two significant ways. First, the claimed invention obtains biometric information of a first customer, and then obtains biometric information of a second customer. The second customer *is different than the first customer*. However, in Howard, you are comparing two images to see if they belong to the same person. As such, it is not *inherent* in Howard that the first person is different than the second person. In fact, there is at least some likelihood that these two people are the same person; otherwise, there is no point in comparing two images to see if they belong to the same person. Therefore, this aspect of the claimed invention is not anticipated by Howard.

Second, Howard does not disclose indicating how closely the biometric information of the first and the second customers match one another *to these customers themselves*. That is, in the claimed invention, the entertainment machine indicates *to the first and the second customers* how close their biometric information is. Howard is silent as to this point, and thus cannot explicitly anticipate this aspect of the claimed invention. However, Howard also does not implicitly anticipate this aspect of the claimed invention, either. For example, the usefulness of determining whether two images are of the same person is useful when you are looking at two sets of fingerprints from different crime scenes. In this instance, how closely the two images match is not going to be indicated *to the people whose faces or fingerprints are in the images*, but rather to a law enforcement or a security user. Therefore, the aspect of the claimed invention in question is not “necessarily present” within Howard, such that the claimed invention is not anticipated by Howard.

In response to Applicant’s arguments, the Examiner grouped claims 13 and 18 together, and thus stated first, as has been discussed above in relation to claim 13, that “Applicant’s arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.” (Final office action, p. 10, para. 6.) Applicant respectfully disagrees. Applicant has explained above how Howard differs from the claimed invention because it does not explicitly or inherently detect biometric information of two different people, as in the claimed invention, and does not explicitly or inherently indicate to these two different people in particular how close their biometric information match. As such, Applicant has specifically pointed out how the language of the claims is distinguished from Howard. Howard does not disclose “detecting biometric information of a second customer *different than the first customer*,” and Howard does not disclose “indicating how closely the biometric information of the first customer and the biometric information of the second customer match *to the first and the second customers*.”

The Examiner has also stated that:

It is a mere choice who is informed of [how closely the biometric information match]. It is a mere choice to who is informed of such result, it does not constitute a distinct patentable limitation. Once again, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, which it is, then it meets the claim.

(Final office action, p. 10, para. 6.) Applicant respectfully disagrees. Although the Examiner's arguments here may have more credence in relation to the apparatus of claim 18 as compared to the method of claim 13 – where as has been discussed above, the Examiner's comments are essentially irrelevant to a method claim – they nevertheless do not withstand scrutiny. To say that it is a “mere choice” who is informed of how closely the biometric information of the first customer and the biometric information of the second customer match, such that the last element of claim 18 is not a “distinct patentable limitation,” and that this last element of claim 18 thus recites an “intended use of the claimed invention,” incorrectly characterizes claim 18.

More specifically, the last element of claim 18 is not an intended use of the claimed invention; it is a positive limitation of the apparatus of claim 18, specifically that the apparatus includes an output mechanism “to indicate *to the first customer and the second customer* how closely the biometric information of the first customer and the biometric information of the second customer match.” A positive limitation of a structural element structurally limits the structural element, and is not an “intended” use of the method. This is a distinct patentable limitation, insofar as Howard does not teach such indication.

It is noted that even if the Board agrees with the Examiner in this respect, Howard still does not anticipate claim 18, because it does not necessarily obtain biometric information of both a first customer and a second customer different than the first customer. The Examiner has not addressed this argument of Applicant other than by saying that it amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. However, as has been discussed above, Applicant has indeed provided a detailed discussion as to how the language of the claims – such as obtaining biometric information of a first customer and a second customer different than

the first customer – is not found in Howard. For these reasons, Applicant submits that claim 18, and thus claim 19 that depends therefrom, are not anticipated by Howard.

Third ground of rejection, as to anticipation of claims 1-7

Claims 1-7 have been rejected under 35 USC 102(e) as being anticipated by Howard. Claim 1 is an independent claim, from which claims 2-7 ultimately depend. Applicant submits that claim 1 is not anticipated by Howard, such that claims 2-7 are not anticipated by Howard at least because they depend from an unanticipated base independent claim, claim 13.

Applicant again notes that, under 35 USC 102, every limitation of a claim must *identically* appear in a single prior art reference for it to anticipate the claim. (In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990)) That is, the standard for anticipation under 35 USC 102 is that "[t]here must be *no difference* between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." (Scripps Clinic & Research Found. v. Genentech, Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991)) While a reference may explicitly or implicitly (i.e., inherently) disclose the claimed invention, it is noted that "[i]nherency . . . may *not* be established by probabilities or *possibilities*. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient." (Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)) Rather, the extrinsic evidence "must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference." (*Id.*)

Claim 1 is limited to a method that obtains biometric information of a customer. The method compares this biometric information against a database of biometric information of predetermined people "other than the customer" and "with which the customer is likely to be familiar" to yield people having biometric information that mostly closely matches the biometric information of the customer. The method then indicates these people to the customer. The method is performed "by an entertainment machine."

The most relevant embodiment of Howard to the claimed invention of claim 1 is described in Howard as follows:

We even anticipate that the method of FIG. 6 can be used to implement functionality as disparate as computer dating, searching for models and/or actors, and law enforcement searching. For example, in a computer dating or model/actor search implementation, an individual may be desirous of finding a person in the database who “looks like” their ideal (which ideal may an image resembling, for example, an ex-girlfriend or boyfriend, a celebrity or model, an idealized image created by the individual, an image that closely resembles the individual himself or herself, etc.)

(Para. [0148]) Let us parse this embodiment of Howard. Claim 1 is limited to detecting biometric information of a customer, determining people with whom the customer is likely to be familiar (and other than the customer him or herself) that have similar biometric information, and then indicating these people to the customer. Thus, finding a model or an actor, or computer dating, as discussed in Howard are most apropos to claim 1. This is because with respect to law enforcement searching, you do not compare the biometric information of someone to the biometric of people other than this person, and then indicate to this person the people who have similar biometric information.

For example, consider a suspect who has left fingerprints on the scene of a crime. A detective may compare those fingerprints to a database of fingerprints of known criminals, in the hope of determining who the suspect is. There is no point in performing this comparison if it is known *a priori* that the database does not include the fingerprints of the suspect him or herself – and yet this is what the claimed invention is directed to, where you have a database of biometric information of people *other than the customer*. Furthermore, the database is not likely to be populated with the fingerprints of people with whom the suspect *is likely to be familiar*. That is not the point of having a fingerprint database. Rather, you want all known criminals and suspect criminals to have their fingerprints in the database, and do not care whether the suspect in question is likely to be familiar with these people (and indeed, want and hope that the suspect is in the database!). Therefore, from the law enforcement perspective, Howard does not anticipate the claimed invention.

As such, what is focused on in more detail is the model/actor finding and computer dating scenarios of Howard. Presumably, in either situation, a user can find a model or an actor that

“looks like” himself or herself, or a potential dating partner that “looks like” himself or herself, consistent with the claimed invention. However, the claimed invention is limited to comparing the biometric information of the customer to a database of biometric information of predetermined people “with which the customer is likely to be familiar.” It is this limitation that is not explicitly or inherently disclosed in Howard. In first instance, Howard makes no explicit reference to whether the people against which the customer is being compared are people that the customer is familiar with. Explicitly, therefore, Howard does not anticipate this aspect of the claimed invention.

Let us look at implicit or inherent disclosure of this aspect of the claimed invention in Howard, however. First, with respect to computer dating, as can be appreciated by those of ordinary skill within the art and presumably by the Examiner, the idea of computer dating is that you get to learn of potential dating partners that you did not know before. That is, if you knew all the potential dating partners already, then there would be no point to paying for the computer dating service. (For example, consider the online dating service www.match.com, which enables subscribers to “find great dates.”) Therefore, it is no inherent that the customer is likely to be familiar with the people against which his or her biometric information is being compared. In fact, the opposite is in greater likelihood to be true – that the people in the database are people that the customer is not likely to be familiar with, since the customer is paying to find a date with someone, and if the customer already knew all the people in the database, he or she would not have to use the computer dating service. Therefore, this limitation is not “necessarily present” within Howard.

Second with respect to model or actor searching, Howard is silent as to how or why this model or actor searching is to be achieved. There is the scenario envisioned by the claimed invention, in which a user wants to find models or actors that he or she is likely to be familiar with. However, just as likely is another type of model or actor searching. Consider this example: I am a director of a movie, and want a new actor who looks like myself (or who looks like Brad Pitt, Diana Ross, etc.) to play a part in the movie. I do not want to star in the movie myself, and I do not want to pay the high price that Brad Pitt, Diana Ross, or another star *with whom I am*

familiar to star in the movie. Therefore, I use Howard's biometric searching to find someone *who I do not know already* and who likes like me, Brad Pitt, Diana Ross, or whatever. The idea here, then, is that such a director would be searching among predetermined people with whom *he or she is not likely to be familiar* – in contradistinction to the claimed invention. Insofar Howard is silent as to how or why model or actor searching is to be performed, this situation is just as likely (if not more so) than the claimed invention, such that the aspect of the claimed invention in question is not “necessarily present” in Howard. As a result, Howard does inherently anticipate this limitation of the claimed invention.

In response to Applicant's arguments, the Examiner has again first stated that a “recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art.” (Final office action, p. 9.) However, this statement is uninformative in relation to a method claim, as has been discussed above in relation to claims 13 and 18. Each of the method of claim 1's steps, parts, or acts have to be inherently or explicitly recited in Howard for Howard to anticipate claim 1. Howard does not recite comparing biometric information of a customer against the biometric information of a plurality of predetermined people with which the customer is likely to be familiar, where these predetermined people are other than the customer. This is not an intended use, but an actual positive limitation of claim 1.

Second, the Examiner has stated that the “applicant cannot make arguments to subject matters not claimed,” in relation to “a database of biometric information of predetermined people ‘with which the customer is likely to be familiar.’” (Final office action, p. 10.) However, claim 1 does indeed explicitly recite the phrase “a database of biometric information of a plurality of predetermined people other than the customer *and with which the customer is likely to be familiar.*” Therefore, Applicant is indeed making arguments to claimed subject matter, in contradistinction to the Examiner's assertion to the contrary. For all of these reasons, therefore, Applicant submits that claim 1 is not anticipated by Howard.

Fourth ground of rejection, as to anticipation of claims 8-12

Claims 8-12 have been rejected under 35 USC 102(e) as being anticipated by Howard. Claim 8 is an independent claim, from which claims 9-12 ultimately depend. Applicant submits that claim 8 is not anticipated by Howard, such that claims 9-12 are not anticipated by Howard at least because they depend from an unanticipated base independent claim, claim 8.

Applicant again notes that, under 35 USC 102, every limitation of a claim must *identically* appear in a single prior art reference for it to anticipate the claim. (In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990)) That is, the standard for anticipation under 35 USC 102 is that "[t]here must be *no difference* between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." (Scripps Clinic & Research Found. v. Genentech, Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991)) While a reference may explicitly or implicitly (i.e., inherently) disclose the claimed invention, it is noted that "[i]nherency . . . may *not* be established by probabilities or *possibilities*. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient." (Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)) Rather, the extrinsic evidence "must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference." (*Id.*)

Claim 8 is to at least some extent the apparatus analog to the method of claim 1. As such, claim 8 is limited to an entertainment machine that obtains biometric information of a customer. The machine compares this biometric information against a database of biometric information of predetermined people "other than the customer" and "with which the customer is likely to be familiar" to yield people having biometric information that mostly closely matches the biometric information of the customer. The machine then indicates these people to the customer. The method is performed "by an entertainment machine."

As has been discussed in relation to claim 1 above, the most relevant embodiment of Howard to the claimed invention of claim 8 is described in Howard as follows:

We even anticipate that the method of FIG. 6 can be used to implement functionality as disparate as computer dating, searching for models and/or actors, and law enforcement searching. For example, in a computer dating or model/actor search implementation, an individual may be desirous of finding a person in the

database who “looks like” their ideal (which ideal may an image resembling, for example, an ex-girlfriend or boyfriend, a celebrity or model, an idealized image created by the individual, an image that closely resembles the individual himself or herself, etc.)

(Para. [0148]) Let us again parse this embodiment of Howard. Claim 8 is limited to detecting biometric information of a customer, determining people with whom the customer is likely to be familiar that have similar biometric information, and then indicating these people to the customer. Thus, finding a model or an actor, or computer dating, as discussed in Howard are most apropos to claim 8. This is because with respect to law enforcement searching, you do not compare the biometric information of someone to the biometric of people other than this person, and then indicate to this person the people who have similar biometric information.

For example, consider a suspect who has left fingerprints on the scene of a crime. A detective may compare those fingerprints to a database of fingerprints of known criminals, in the hope of determining who the suspect is. The database is not likely to be populated with the fingerprints of people with whom the suspect *is likely to be familiar*. That is not the point of having a fingerprint database. Rather, you want all known criminals and suspect criminals to have their fingerprints in the database, and do not care whether the suspect in question is likely to be familiar with these people. Therefore, from the law enforcement perspective, Howard does not anticipate the claimed invention.

As such, what is focused on in more detail is again the model/actor finding and computer dating scenarios of Howard. Presumably, in either situation, a user can find a model or an actor that “looks like” himself or herself, or a potential dating partner that “looks like” himself or herself, consistent with the claimed invention. However, the claimed invention is limited to comparing the biometric information of the customer to a database of biometric information of predetermined people “with which the customer is likely to be familiar.” It is this limitation that is not explicitly or inherently disclosed in Howard. In first instance, Howard makes no explicit reference to whether the people against which the customer is being compared are people that the customer is familiar with. Explicitly, therefore, Howard does not anticipate this aspect of the claimed invention.

Let us look at implicit or inherent disclosure of this aspect of the claimed invention in Howard, however. First, with respect to computer dating, as can be appreciated by those of ordinary skill within the art and presumably by the Examiner, the idea of computer dating is that you get to learn of potential dating partners that you did not know before. That is, if you knew all the potential dating partners already, then there would be no point to paying for the computer dating service. (For example, consider the online dating service www.match.com, which enables subscribers to “find great dates.”) Therefore, it is no inherent that the customer is likely to be familiar with the people against which his or her biometric information is being compared. In fact, the opposite is in greater likelihood to be true – that the people in the database are people that the customer is not likely to be familiar with, since the customer is paying to find a date with someone, and if the customer already knew all the people in the database, he or she would not have to use the computer dating service. Therefore, this limitation is not “necessarily present” within Howard.

Second with respect to model or actor searching, Howard is silent as to how or why this model or actor searching is to be achieved. There is the scenario envisioned by the claimed invention, in which a user wants to find models or actors that he or she is likely to be familiar with. However, just as likely is another type of model or actor searching. Consider this example: I am a director of a movie, and want a new actor who looks like myself (or who looks like Brad Pitt, Diana Ross, etc.) to play a part in the movie. I do not want to star in the movie myself, and I do not want to pay the high price that Brad Pitt, Diana Ross, or another star *with whom I am familiar* to star in the movie. Therefore, I use Howard’s biometric searching to find someone *who I do not know already* and who looks like me, Brad Pitt, Diana Ross, or whatever. The idea here, then, is that such a director would be searching among predetermined people with whom *he or she is not likely to be familiar* – in contradistinction to the claimed invention. Insofar Howard is silent as to how or why model or actor searching is to be performed, this situation is just as likely (if not more so) than the claimed invention, such that the aspect of the claimed invention in question is not “necessarily present” in Howard. As a result, Howard does inherently anticipate this limitation of the claimed invention.

In response to Applicant's arguments, the Examiner has again first stated that a "recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art." (Final office action, p. 9.) Although this statement may have more credence in relation to the apparatus of claim 8 as compared to the method of claim 1, it nevertheless does not withstand scrutiny. Claim 8's limitations have to be inherently or explicitly recited in Howard for Howard to anticipate claim 1. Howard does not recite comparing biometric information of a customer against the biometric information of a plurality of predetermined people with which the customer is likely to be familiar. This is not an intended use, but an actual positive limitation of claim 8.

Second, the Examiner has stated that the "applicant cannot make arguments to subject matters not claimed," in relation to "a database of biometric information of predetermined people 'with which the customer is likely to be familiar.'" (Final office action, p. 10.) Again, however, claim 8 does indeed explicitly recite the phrase "a database of biometric information of a plurality of predetermined people other than the customer *and with which the customer is likely to be familiar.*" Therefore, Applicant is indeed making arguments to claimed subject matter, in contradistinction to the Examiner's assertion to the contrary. For all of these reasons, therefore, Applicant submits that claim 8 is not anticipated by Howard.

Fifth ground of rejection, as to enablement of claims 1-7

Claims 1-7 have been rejected under 35 USC 112, first paragraph, as not being enabled. In particular, the Examiner has stated that, as to the limitation of claim 1 regarding "a plurality of predetermined people other than the customer," it is unclear how the customer can be excluded from the predetermined people in the database in view of the specification. Applicant respectfully disagrees, and very respectfully submits that it is crucial to understand this limitation vis-à-vis the specification to understand the scope of this embodiment of the invention.

The standard governing enablement under 35 USC 112, first paragraph, is "whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent

[application] coupled with information known in the art without undue experimentation.” (United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988)) As to how to “make” the invention, as long as the specification discloses at least one method for making the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 USC 112 is satisfied. (In re Fisher, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970)) As to how to “use” the invention, if a statement of utility in the specification contains within it a connotation of how to use, and/or the art recognizes that standard modes of administration are known and contemplated, 35 USC 112 is satisfied. (In re Johnson, 282 F.2d 370, 373, 127 USPQ 216, 219 (CCPA 1960)).

In light of this discussion, Applicant notes that as to the embodiment of the invention covered by claim 1, the idea is that the “biometric information of the customer is compared against a database of biometric information of people other than the customer, to yield one or more people having biometric information that most closely matches biometric information of the customer.” (Specification, p. 4, ll. 14-17) “Importantly, the database preferably does not include biometric information of the customer him or herself.” (Id., p. 4, ll. 19-22) “This is because the goal is not identification of the customer – i.e., determining the customer’s identity – but rather for amusement and entertainment to indicate to the customer other people that have similar biometric information as that of the customer.” (Id., p. 4, l. 22, through p. 5, l. 2)

Thus, as is clear from the patent application as filed, the idea in claim 1 is that you can get your biometric information scanned – e.g., such as your face (Specification, p. 4, ll. 19-21) – and then see what other people are similar to you biometrically, such as other people that look like you, for amusement purposes. “People may be interested to learn, for example, what sports stars their faces most closely resemble, or the movie stars who have hand geometries most similar to them.” (Id., p. 2, ll. 6-8) The people in the database “are preferably famous individuals, such as sports stars, celebrities, politicians, and historical figures.” (Id., p. 5, ll. 3-4) “Furthermore, the people may be fictitious persons or characters, such as popular cartoon characters.” (Id., p. 5, ll. 4-5) “The intention in one embodiment of the invention is to have biometric of people with which typical customers are likely to be familiar.” (Id., p. 5, ll. 5-7) As such, “the customer can

learn whom he or she ‘looks like’ or ‘sounds like,’ as determined biometrically.” (Id., p. 5, ll. 9-10)

Therefore, the exclusion of the customer from the plurality of predetermined people gets to the heart of this embodiment of the invention. For amusement and entertainment, a customer learns who he or she resembles from this plurality of predetermined people. Obviously, the customer most resembles him or herself – and this is one reason why he or she is not included in the plurality of predetermined people. The point is that these are predetermined people who the customer is likely to be familiar with. A customer can find out, for instance, that he looks like Brad Pitt, or that she sounds like Diana Ross. The patent application as filed most definitively enables the predetermined people not including the customer him or herself, since this is the whole point of this embodiment of the invention.

Therefore, Applicant submits that claim 1, and claims 2-7 that depend therefrom, are enabled by the specification as filed. As to “making” the invention, the specification discloses a method that bears *more* than “a reasonable correlation” to the entire scope of claim 1, such that the enablement requirement specified by *In re Fisher* above is satisfied. As to “using” the invention, there is *more* than a “connotation” of how to use the invention of claim 1, such that the enablement requirement specified by *In re Johnson* above is also satisfied.

In response, the Examiner has stated first that the specification on page 4, lines 15-17 states that the database preferably does not include biometric information of the customer him or herself, but that such claim limitations are not recited in claim 1. (See final office action, p. 9.) However, the phrases “a plurality of people other than the customer” and “a plurality of people not including the customer” are linguistically equivalent. Applicant chose to use the former phrase in claim 1 instead of the latter phrase because the former phrase does not include the word “not,” which is a negative limitation that is preferred to not be included in claim language. Thus, the claim limitation of page 4, lines 15-17 is indeed recited in claim 1, and in any case, the standard governing enablement is satisfied. That is, the phrase “a plurality of people other than the customer” bears a reasonable correlation to the phrase “a plurality of people not including the

customer,” such that the former phrase in claim 1 is enabled by the latter phrase in the specification of the patent application as filed.

The Examiner has also stated that “how would the computer distinguish between a celebrity who is also a customer/player of such invention, if Brad Pitt or Jennifer Aniston wants to play the entertainment machine, how would the machine eliminate Brad Pitt or Jennifer Aniston from the searchable database.” (Final office action, p. 9.) Applicant notes that claim 1 is directed to a method that recites usage of an entertainment machine, and in at least this respect, Applicant’s reply to the Examiner’s question is that claim 1 would simply not be infringed in such a situation – that is, the issue here is one of infringement, not enablement. Claim 1 is directed to detecting biometric information of a customer and comparing this biometric information against the biometric information of a number of people other than the customer. Insofar as the customer is one of these people, then claim 1 is just not infringed in this case. Enablement has nothing to do with this situation.

The Examiner’s concern that the biometric information of a customer may be in the database of biometric information is, in other words, a red herring that does not speak to enablement, but rather to infringement. Claim 1 is directed to a method that compares biometric information of a customer against biometric information of people other than the customer. If the customer in question is one of these people, then quite simply this situation is not covered by the method of claim 1. The legal standard of enablement does not require disclosure in the instant specification of a “computer” distinguishing between a celebrity who is also a customer/player and/or the “machine” eliminating Brad Pitt or Jennifer Aniston from the searchable database, as the Examiner would like. The method of claim 1, that is, does not have to distinguish between a celebrity who is also a customer/player, and does not have to eliminate such celebrities from the searchable database when the play. Rather, if a customer attempts to play in accordance with the method of claim 1 and his or her biometric information is in the database, then claim 1 is simply not infringed. There is no enablement issue here; Applicant respectfully submits that the Examiner is confusing infringement with enablement.

For these reasons, therefore, Applicant submits that claims 1-7 are enabled by the specification to the satisfaction of 35 USC 112, first paragraph.

Conclusion

Applicant believes that the pending claims are in condition for allowance, and requests that they so be allowed, for the reasons described above.

Respectfully Submitted,



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Claims Appendix: Listing of claims on appeal

1. (previously presented) A method comprising:
detecting biometric information of the customer by an entertainment machine;
the entertainment machine comparing the biometric information of the customer against a database of biometric information of a plurality of predetermined people other than the customer and with which the customer is likely to be familiar to yield one or more people having biometric information that most closely matches the biometric information of the customer; and,
indicating to the customer by the entertainment machine of identities of the one or more people having biometric information that most closely matches the biometric information of the customer.
2. (previously presented) The method of claim 1, wherein detecting the biometric information of the customer comprises acquiring one or more of: facial images of the customer; voice samples of the customer; fingerprint scans of the customer; handprint scans of the customer; and, retinal eye scans of the customer.
3. (previously presented) The method of claim 1, wherein comparing the biometric information of the customer against the database of biometric information of the plurality of predetermined people other than the customer comprises comparing the biometric information of the customer against one or more databases selected from a database of biometric information of a plurality of famous individuals; a database of biometric information of a plurality of sports stars; a database of biometric information of a plurality of celebrities; a database of biometric information of a plurality of politicians; a database of biometric information of a plurality of historical figures; and, a database of biometric information of a plurality of fictitious characters.
4. (original) The method of claim 1, wherein comparing the biometric information of the customer against the database of biometric information of the plurality of predetermined people

other than the customer comprises yielding a predetermined number of the one or more people having biometric information that most closely matches the biometric information of the customer.

5. (original) The method of claim 1, wherein comparing the biometric information of the customer against the database of biometric information of the plurality of predetermined people other than the customer comprises yielding the one or more people having biometric information that most closely matches the biometric information of the customer as the one or more people having biometric information that matches the biometric information of the customer by more than a threshold.

6. (previously presented) The method of claim 1, wherein indicating to the customer by the entertainment machine of the identities of the one or more people having biometric information that most closely matches the biometric information of the customer comprises displaying at least one of a picture and a name of each of the one or more people.

7. (previously presented) The method of claim 1, wherein indicating to the customer by the entertainment machine of the identities of the one or more people having biometric information that most closely matches the biometric information of the customer comprises printing a hardcopy of at least one of a picture and a name of each of the one or more people.

8. (previously presented) An entertainment machine comprising:
a biometric acquisition mechanism to obtain biometric information of a customer;
a computer-readable medium having stored thereon a database of biometric information of a plurality of predetermined people with which the customer is likely to be familiar;
a comparison mechanism to compare the biometric information of the customer against the database to yield one or more people having biometric information that most closely matches the biometric information of the customer; and,

an output mechanism to indicate to the customer the one or more people having biometric information that most closely matches the biometric information of the customer.

9. (original) The entertainment machine of claim 8, further comprising a credit-accepting mechanism to accept cash-oriented credit from the customer and in response initiate obtaining the biometric information of the customer, comparing the biometric information of the customer against the database, and indicating to the customer the one or more people having biometric information that most closely matches the biometric information of the customer.

10. (original) The entertainment machine of claim 8, wherein the biometric acquisition mechanism comprises one or more of: an image-capturing mechanism to capture at least one of facial images, retinal scans, and eye scans of the customer; a sound-recording mechanism to record voice samples of the customer; and, a touch-sensitive mechanism to obtain at least one of fingerprint scans and handprint scans of the customer.

11. (original) The entertainment machine of claim 8, wherein the database comprises one or more of: a database of biometric information of a plurality of famous individuals; a database of biometric information of a plurality of sports stars; a database of biometric information of a plurality of celebrities; a database of biometric information of a plurality of politicians; a database of biometric information of a plurality of historical figure; and, a database of biometric information of a plurality of fictitious characters.

12. (original) The entertainment machine of claim 8, wherein the output mechanism comprises at least one of: a display device, and a printing device.

13. (previously presented) A method comprising:
detecting biometric information of a first customer by an entertainment machine;

detecting biometric information of a second customer different than the first customer by the entertainment machine;

determining how closely the biometric information of the first customer and the biometric information of the second customer match; and,

indicating how closely the biometric information of the first customer and the biometric information of the second customer match to the first and the second customers by the entertainment machine.

14. (previously presented) The method of claim 13, wherein detecting the biometric information comprises acquiring one or more of: facial images; voice samples; fingerprint scans; handprint scans; and, retinal scans.

15. (original) The method of claim 13, wherein determining how closely the biometric information of the first customer and the biometric information of the second customer match comprises determining a similarity value between the biometric information of the first customer and the biometric information of the second customer.

16. (original) The method of claim 15, wherein indicating how closely the biometric information of the first customer and the biometric information of the second customer match to the first and the second customers comprises displaying the similarity value.

17. (original) The method of claim 15, wherein indicating how closely the biometric information of the first customer and the biometric information of the second customer match to the first and the second customers comprises printing a hardcopy of the similarity value.

18. (previously presented) An entertainment machine comprising:
a biometric acquisition mechanism to obtain biometric information of a first customer and biometric information of a second customer different than the first customer;

a comparison mechanism to determine how closely the biometric information of the first customer matches the biometric information of the second customer; and,

an output mechanism to indicate to the first customer and the second customer how closely the biometric information of the first customer matches the biometric information of the second customer.

19. (previously presented) The entertainment machine of claim 18, further comprising a credit-accepting mechanism to accept cash-oriented credit from at least one of the first customer and the second customer and in response initiating obtaining the biometric information, determining how closely the biometric information of the first customer matches the biometric information of the second customer, and indicating to the first customer and the second customer how closely the biometric information of the first customer matches the biometric information of the second customer.

20. (cancelled)

Evidence Appendix

(No evidence was submitted pursuant to Rules 130, 131, and 132, and therefore, this section is blank.)

Related Proceedings Appendix

(There are no related proceedings to this patent application, and therefore, this section is blank.)